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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/510,116	02/22/2000	Anthony D Minervini	804RP746	2137

29176 7590 02/19/2002

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EXAMINER

EASTHOM, KARL D

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 02/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/510,116

Applicant(s)  
Minervine et al.

Examiner  
Karl Easthom

Art Unit  
2832



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jan 29, 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7, 8, 10-16, and 18-42 is/are pending in the application.
- 4a) Of the above, claim(s) 33-37 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16, 18-32, and 38-42 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 8, 10, and 13-15 is/are rejected.
- 7) ☒ Claim(s) 11 and 12 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 20) ☐ Other: \_\_\_\_\_

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7-8, 10, and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneda in view of Niihara et al. (JP 6-69416), or McGuire et al. '403

Yoneda discloses the claimed invention at Figs. 6, 9 and col. 8, lines 1-5, except a PTC element material being polymer. As to the electrodes not extending to the second end of the PTC element, Fig. 9 discloses that configuration, and col. 8, lines 1-5, discloses that that configuration can be employed for Fig. 6 (thermistor 1 extends to the edge). Niihara discloses that polymer PTC resistors are useful for replacing ceramic thermistors such as that of Niihara at par. 16 in order to form a reduced size. McGuire discloses that ceramic and polymer thermistor devices are well known for current protection, and discloses similar devices at Figs. 10 and 12 to that of Yoneda, further suggesting that the configuration of Yoneda can be made of polymers.

It would have been obvious to employ one well known material for another where one has certain advantages such as reduced size, and polymer devices need not be sintered as ceramics, and all materials are employed as thermistor circuit protection devices. As to claim 7, any ceramic, dielectric or other material is disclosed at the top of col. 8 of McGuire, and where copper is disclosed for the electrodes at col. 5, lines 5-12, the insulating layer is deemed a copper clad PC board since it can be used as a PC board and no other printed circuits are on same. It would have been obvious to replace the well known equivalent materials in the electrical resistor arts for each other where Yoneda employs a ceramic to insulate and conduct electricity for the

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purpose of employing well known replacement parts during shortage of other equivalent parts.

As to claims 14-15, the multiple layer foils are disclosed as a known electrode for polymers in McGuire as 100,150,180 for example, so that it would have been obvious to employ the materials that are known to be compatible with metal foils.

3. Claims 11-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18-32, and 38-42  
4. Claims 16 and ~~18-42~~ are allowed.

5. Applicant's arguments filed 1/29/02 have been fully considered but they are moot, or persuasive only in part, as indicated by the allowable claims. Applicant argues that it would not have been obvious to employ polymer in the Yoneda device, and that the Fig. 6 modification via Fig. 9 would not have been obvious. These points are addressed above. In summary, the latter modification requires no motivation as it is explicitly disclosed as noted above. As to replacing a ceramic thermistor with a polymer thermistor, this is well known. Further, the device of McGuire is close to that of Yoneda in structure, suggesting the interchangeable nature of either structure or material.

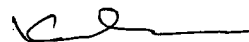
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl D Easthom whose telephone number is 703 308-3306. The examiner can normally be reached on M-Th, 5:30AM-4:00PM. The fax phone numbers for the organization where this application or proceeding is assigned are 703 308-7722 for regular communications and 703 308-7722 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0956.



Karl D Easthom  
Primary Examiner  
Art Unit 2832

KDE

February 14, 2002